

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1           1-51 (Canceled )

1           52. (New) A method for operating a hybrid cache in a warm-up phase,  
2 comprising:

3           receiving a plurality of content digests from associated hybrid caches,  
4 wherein a given content digest specifies which data objects are stored at a given  
5 associated hybrid cache, and wherein each associated hybrid cache supplies a  
6 content digest;

7           receiving a request for a data object;

8           searching the plurality of content digests to determine if an associated  
9 hybrid cache is storing the data object; and if so,

10           retrieving the data object from the associated hybrid cache,  
11           and

12           serving the data object.

1           53. (New) The method of claim 52, wherein if the data object is not stored  
2 in any associated hybrid cache, the method further comprises:

3           retrieving the data object from an origin server; and  
4           serving the data object.

1        54. (New) The method of claim 53, wherein after the data object is served,  
2 the method further comprises:  
3            determining if the data object is a primary data object; and if so  
4            caching the data object.

1        55. (New) The method of claim 54, wherein if the data object is a  
2 secondary data object the method further comprises:  
3            determining if the data object satisfies a set of dynamic criteria; and if so  
4            caching the data object.

1        56. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a popularity of the data object.

1        57. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a utilization of the hybrid cache.

1        58. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a size of the data object.

1        59. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes validity of the data object.

1        60. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes age of the data object.

1        61. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes ownership of the data object.

1       62. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a cost of retrieving the data object from one of the origin server and an  
3 associated cache.

1       63. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a level of storage input/output activity at the hybrid cache.

1       64. (New) The method of claim 55, wherein the set of dynamic criteria  
2 includes a level of communication activity at the hybrid cache.

1       65. (New) A computer-readable storage medium storing instructions that  
2 when executed by a computer cause the computer to perform a method for  
3 operating a hybrid cache in a warm-up phase, the method comprising:

4           receiving a plurality of content digests from associated hybrid caches,  
5 wherein a given content digest specifies which data objects are stored at a given  
6 associated hybrid cache, and wherein each associated hybrid cache supplies a  
7 content digest;

8           receiving a request for a data object;

9           searching the plurality of content digests to determine if an associated  
10 hybrid cache is storing the data object; and if so,

11                   retrieving the data object from the associated hybrid cache,

12                   and

13                   serving the data object.

1       66. (New) The computer-readable storage medium of claim 65, wherein if  
2 the data object is not stored in any associated hybrid cache, the method further  
3 comprises:

4           retrieving the data object from an origin server; and

5 serving the data object.

1 67. (New) The computer-readable storage medium of claim 66, wherein  
2 after the data object is served, the method further comprises:  
3 determining if the data object is a primary data object; and if so  
4 caching the data object.

1 68. (New) The computer-readable storage medium of claim 67, wherein if  
2 the data object is a secondary data object the method further comprises:  
3 determining if the data object satisfies a set of dynamic criteria; and if so  
4 caching the data object.

1 69. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a popularity of the data object.

1 70. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a utilization of the hybrid cache.

1 71. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a size of the data object.

1 72. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes validity of the data object.

1 73. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes age of the data object.

1           74. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes ownership of the data object.

1           75. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a cost of retrieving the data object from one of  
3 the origin server and an associated cache.

1           76. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a level of storage input/output activity at the  
3 hybrid cache.

1           77. (New) The computer-readable storage medium of claim 68, wherein  
2 the set of dynamic criteria includes a level of communication activity at the hybrid  
3 cache.

1           78. (New) An apparatus for operating a hybrid cache in a warm-up phase,  
2 comprising:

3           a receiving mechanism configured to receive a plurality of content digests  
4 from associated hybrid caches, wherein a given content digest specifies which  
5 data objects are stored at a given associated hybrid cache, and wherein each  
6 associated hybrid cache supplies a content digest;

7           wherein the receiving mechanism is further configured to receive a request  
8 for a data object;

9           a searching mechanism configured to search the plurality of content  
10 digests to determine if an associated hybrid cache is storing the data object;

11           a retrieving mechanism configured to retrieve the data object from the  
12 associated hybrid cache; and

13           a serving mechanism configured to serve the data object.

1        79. (New) The apparatus of claim 78, wherein the retrieving mechanism is  
2 further configured to retrieve the data object from an origin server

1        80. (New) The apparatus of claim 79, further comprising:  
2            a determining mechanism configured to determine if the data object is a  
3 primary data object; and  
4            a caching mechanism configured to cache the data object.

1        81. (New) The apparatus of claim 80, wherein the determining mechanism  
2 is further configured to determine if the data object satisfies a set of dynamic  
3 criteria.

1        82. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a popularity of the data object.

1        83. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a utilization of the hybrid cache.

1        84. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a size of the data object.

1        85. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes validity of the data object.

1        86. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes age of the data object.

1       87. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes ownership of the data object.

1       88. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a cost of retrieving the data object from one of an origin server and an  
3 associated cache.

1       89. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a level of storage input/output activity at the hybrid cache.

1       90. (New) The apparatus of claim 81, wherein the set of dynamic criteria  
2 includes a level of communication activity at the hybrid cache.